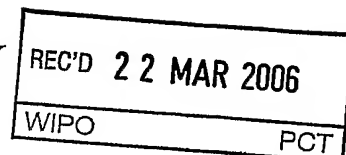


PATENT COOPERATION TREATY

PCT



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)
(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference 10012333WO01 | FOR FURTHER ACTION | See Form PCT/IPEA/416 |
| International application No. PCT/JP2004/019486 | International filing date (day/month/year) 20.12.2004 | Priority date (day/month/year) 22.12.2003 |
| International Patent Classification (IPC) or national classification and IPC Int.Cl. H05K3/10 (2006.01), B05C5/00 (2006.01), B05C11/10 (2006.01), B05D1/26 (2006.01), B05D5/12 (2006.01), H01L21/288 (2006.01) | | |
| Applicant CANON KABUSHIKI KAISHA | | |

| | |
|----|---|
| 1. | This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. |
| 2. | This REPORT consists of a total of <u>3</u> sheets, including this cover sheet. |
| 3. | This report is also accompanied by ANNEXES, comprising: <ul style="list-style-type: none"> a. <input checked="" type="checkbox"/> a total of <u>5</u> sheets, as follows: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). |
| 4. | This report contains indications relating to the following items: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application |

| | | |
|---|--|---------|
| Date of submission of the demand 13.10.2005 | Date of completion of this report 15.03.2006 | |
| Name and mailing address of the IPEA/JP Japan Patent Office 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan | Authorized officer | 3S 9341 |
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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/019486

Box No. I Basis of the report

1. With regard to the **language**, this report is based on:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))
 - ☐ publication of the international application (Rule 12.4(a))
 - ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-41 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- Nos. 5-6, 8-11, 16 _____ as originally filed/furnished
- Nos.* _____ as amended (together with any statement) under Article 19
- Nos.* 1, 3, 12 received by this Authority on 13.10.2005
- Nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets/figs 1-21 _____ as originally filed/furnished
- sheets/figs * _____ received by this Authority on _____
- sheets/figs * _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☒ the claims, Nos. 2, 4, 7, 13-15, 17-19
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/019486

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|----------------------------|-----|
| Novelty (N) | Claims | <u>1, 3, 5-6, 8-12, 16</u> | YES |
| | Claims | <u></u> | NO |
| Inventive step (IS) | Claims | <u></u> | YES |
| | Claims | <u>1, 3, 5-6, 8-12, 16</u> | NO |
| Industrial applicability (IA) | Claims | <u>1, 3, 5-6, 8-12, 16</u> | YES |
| | Claims | <u></u> | NO |

2. Citations and explanations(Rule 70.7)

D1:JP 11-274671 A(SEIKO EPSON CORPORATION)
1999.10.08(Family:None)

D2:WO 2003/105547 A1(FUJI PHOTOFILM CO.,LTD.)
2003.12.18 & US 2003/228543 A1

Claims 1,3,5-6,8-12,16 do not involve inventive steps over D1 or D2. D1 or D2 discloses a wiring method of forming the first pattern and the second pattern on a substrate by supplying the first liquid and the second liquid to said each of the patterns independently. And it is a normal option for a person skilled in the art to decide the forming order of some patterns by considering the information of a wiring pattern.

CLAIMS

1. (Amended) A wiring forming method of supplying
a first liquid and a second liquid in such a manner
that said first liquid and said second liquid contact
5 with each other on a substrate to thereby form a wiring
pattern including the first pattern and the second
pattern on the substrate, the method comprising:
a first pattern forming step of supplying the
first liquid to thereby form the first pattern on the
10 substrate; and
a second pattern forming step of supplying the
second liquid to thereby form the second pattern on the
substrate,
wherein a forming order of said first pattern and
15 said second pattern for constituting said wiring
pattern in a same layer is changed in accordance with
information of said wiring pattern.

2. (Cancelled)

20

3. (Amended) The wiring forming method according
to claim 1, wherein curing process is performed each
time said first pattern or said second pattern is
formed to the substrate.

4. (Cancelled)

5. The wiring forming method according to claim 1,
wherein the first pattern forming step comprises the
5 steps of: forming the first patterns on a plurality of
positions of the substrate, and thereafter the second
pattern forming step comprises the steps of: forming
the second pattern between the first patterns formed in
the plurality of positions on the substrate in such a
10 manner as to bring the second pattern into contact with
the first pattern.

6. The wiring forming method according to claim 1,
further comprising the steps of: discharging the first
15 and second liquids by an ink jet system to thereby
supply the liquids onto the substrate.

7. (Cancelled)

20 8. The wiring forming method according to claim 1,
wherein the first pattern is an insulated pattern

having an insulating property, and the second pattern is a conductive pattern having conductivity.

9. The wiring forming method according to claim
5 1, wherein the first and second patterns are insulating insulated patterns having different properties.

10. The wiring forming method according to claim
1, wherein the first pattern is an insulated pattern
10 having an insulating property, and the second pattern is a semiconductor pattern of a semiconductor.

11. A wiring board comprising: a wiring formed by
the wiring forming method according to claim 1; and the
15 substrate.

12. (Amended) A wiring forming apparatus for
supplying a first liquid forming a first pattern and a
second liquid forming a second pattern in such a manner
20 that the first liquid and the second liquid contact with each other on a substrate to thereby form a wiring pattern including said first pattern and said second wiring pattern on the substrate, the apparatus comprising:

25 a first liquid container which stores the first liquid;

a second liquid container which stores the second

liquid;

first pattern forming means for supplying the first liquid on the substrate from the first liquid container to thereby form the first pattern;

5 second pattern forming means for supplying the second liquid on the substrate from the second liquid container to thereby form the second pattern; and

means for changing a forming order of said first pattern formed by using said first pattern forming
10 means and said second pattern formed by using said second forming means in accordance with information of said wiring pattern upon forming said wiring pattern in a same layer.

15 13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. The wiring forming apparatus according to claim 12, wherein a size of the corresponding first pattern is changeable in accordance with that of the second pattern to be formed.

5

17. (Cancelled)

18. (Cancelled)

10

19. (Cancelled)